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U. S. ARMY SOLDIER SYSTEMS CENTER • NATICK LABS • NATICK, MASSACHUSETTS

Neighborhood Monitoring Wells Installed

As part of the T-25 Area cleanup action, four new monitoring wells have been installed off-site on Fischer and Arcadia Streets, just north of Soldier Systems Center (SSC) property line. These new wells, added to the existing monitoring well network, provide important information about contaminant levels found off-site and groundwater flow conditions around the T-25 Area. Data collected from these wells are reviewed to assess the effectiveness of the pump and treat system and make sure off-site levels of tetrachloroethene (PCE) and trichloroethene (TCE) are decreasing and not advancing down gradient.

Figure 1 shows the aerial location of these wells. These locations were primarily based on extensive computer modeling and analysis of groundwater flow and contaminant transport data in the T-25 Area. The Army's groundwater experts determined that these locations and well depths would most effectively monitor the containment and cleanup of the T-25 Area groundwater.

Continued on page 2

Hello Neighbors Friends!

John McHugh,
Environmental Restoration Officer

As we keep moving ahead in our environmental restoration program, I want to make sure that we are hearing from all interested community members. With newly installed monitoring wells in the neighborhood just north of our property line, I especially want to make sure that our neighbors closest to SSC are aware of our environmental activities and are getting answers to their questions. We understand that the key to our success is the community's involvement and support of our program. Our Restoration Advisory Board (RAB) continues to be an influential force in our progress and I invite you to attend one of our regularly scheduled meetings. That's one way to



John McHugh

Continued on page 3



Figure 1: Neighborhood Well Locations at T-25 Area

Neighborhood Monitoring Wells Installed

continued from page 1

While out in the field but before the installation of the permanent wells the Army conducted the following field screening activities to further determine the best well design:

- Installed four small diameter wells
- Sampled and analyzed groundwater onsite for PCE and TCE
- Recommended construction details (location, depth, screen length, and diameter) to EPA and MADEP

After consultation with EPA and MADEP the well designs were slightly modified and the Army installed the four new long-term monitoring wells. Well construction details are summarized in the table below:

Well ID Number	Well Location	Well Diameter (inches)	Screened Interval Depth (ft bgs)	Approximate Depth to Ground Water (ft bgs)	Soil Type in Screened Interval
MW-208A-2	Fisher Street	2	33 to 43	36	coarse sand and gravel
MW-202C-2	End of Arcadia Street	2	86 to 106	20	medium to coarse sand and gravel
MW-212C-2	In front of 27 Arcadia Street	2	105 to 115	45	fine to medium sand
MW-211B-4	Across from 59 Fisher Street	4	60 to 72	30	fine sand, trace to little silt

ft bgs = feet below ground surface

The 2-inch diameter wells were constructed in the same way as the existing wells in the monitoring network. One 4-inch diameter well, MW-211B-4, was installed just like the other extraction or pumping wells in the system. This well will be used for monitoring but could be used as an extraction well in the future. Additional details of the installation are available in the report entitled, "Final New LTM Well Letter Report, T-25 Area at the Soldier Systems Center, Natick, Massachusetts", March 2004. ♦

Superfund 5-Year Review—It's Time for a Checkup at T-25 Area

As part of the Superfund cleanup process, a 5-year review is conducted at certain sites after a cleanup activity either has been completed or is still in progress. The purpose of the review is to evaluate if the cleanup action is still doing what it's supposed to do in protecting people and the environment. A review team develops a plan, collects information, coordinates with the com-

munity, and writes a report to announce the findings. The report usually covers the following areas: purpose and timing of the review; site chronology and background; description of the remedial action; progress since the last review; 5-year review process; technical assessment; any identified issues; recommendations and follow-up actions; determination if action is protective of people and the environment; and the need for the next review.

At SSC the Record of Decision for the T-25 Area was signed in September 2001 and SSC will be preparing to conduct a 5-year review for the pump

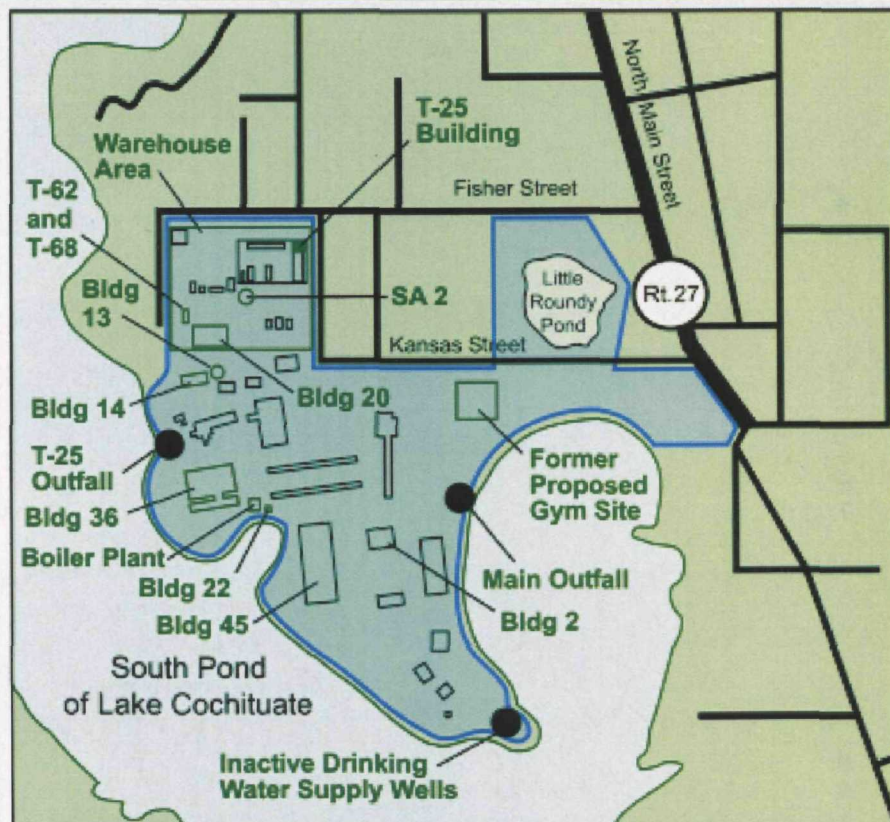
and treat system over the next year. Because SSC is a federal facility, SSC will form the review team, develop a plan and prepare a findings report. EPA will participate in the review and approve the final report. We also want you, the community involved. We will notify the community, about the review, when it will start, and when it's expected to be completed. Look for notices and updates on SSC's 5-Year review in this newsletter, in the newspaper, and discussed at RAB meetings. This is another opportunity for you to let the Army know what you think about the efforts to cleanup the groundwater at the T-25 Area. For more information about EPA's 5-Year review process see "Comprehensive Five Year Review Guidance," EPA 540-R-01-007, OSWER 9355.7-03B-P, June 2001. ♦

Groundwater Cleanup Options at Buildings 22 and 36

The Army is conducting a Feasibility Study to evaluate the cleanup options for the groundwater in the area of Buildings 22 and 36. The Remedial Investigation found tetrachloroethene (PCE) in groundwater extending from the northeast corner of Building 36 in two directions. One portion of the contaminated groundwater extends north-northwest toward the northwest corner of Building 36, while the other portion extends in a south-southeasterly direction toward Building 22. A silt layer exists below the water table and acts as a barrier to the PCE moving downward. Both portions of the contaminated groundwater are believed to discharge to Lake Cochituate; one to the west/northwest of Building 36 and the other to the cove south of Building 22. The maximum observed PCE concentration in groundwater was 560 micrograms per liter (µg/L).

The ecological risk assessment concluded that contaminants in surface soil pose no significant risk to terrestrial wildlife and that contaminants in surface water and sediment pose no significant risk to aquatic life. The baseline human-health risk assessment evaluated several exposure pathways, but identified residential use of on-site groundwater as the only pathway presenting potential exposure risks.

The Army is developing, screening, and evaluating remedial alternatives to reduce this potential human-health risk posed by exposure to the groundwater. Since the federal drinking water standard for PCE is 5 micrograms per liter the Feasibility Study will focus on the



Hello Neighbors Friends!

continued from page 1

hear the latest status of our environmental investigations and meet the technical specialists and active community members working with us.

We are in the process of updating the community involvement plan for SSC's environmental cleanup program. We plan to contact and speak directly with community and business leaders, RAB members, SSC neighbors, and interested citizens to better understand the community's interests and concerns.

Thank you for your continued interest in our environmental program here at SSC. We have a dedicated and experienced team of technical specialists working on the cleanup efforts. My colleagues at SSC and technical specialists as well as the RAB and regulatory agency representatives are doing a great job in guiding and accomplishing the environmental initiatives that are so very important to all of us. Come and join us at a RAB meeting to hear all about the program. ♦

cleanup of PCE in groundwater with the following objectives:

- Prevent the ingestion of groundwater containing PCE at concentrations exceeding 5 µg/L.
- Prevent, to the extent practicable, the off-site migration of groundwater with PCE at concentrations exceeding 5 µg/L.
- Restore groundwater quality such that PCE concentrations do not exceed 5 µg/L.

The Army is considering five potential approaches or cleanup technologies to clean up the groundwater. In addition, a No Action Alternative is always evaluated. The five alternatives being considered in the Feasibility Study are listed with the estimated time and cost (in millions) it will take to reach cleanup goals.:

- Monitored Natural Attenuation (650 years and \$42 million)
- Groundwater Pump and Treat (23 years and \$2.6 million)

- Enhanced In-Situ Bioremediation (20 years and \$3.9 million)
- Permeable Reactive Barrier (650 years and \$86.7 million)
- Groundwater Pump and Treat plus Mass Reduction (11 years and \$2.4 million)
- No Action (650 years and \$0)

The draft Feasibility Study is available for review. The Army is expecting to issue a proposed plan in Fall/Winter 2005, hold a public meeting and request public comment. ♦

Lake Sediments

Chemicals of potential concern have been detected in the sediments of Lake Cochituate adjacent to three SSC stormwater outfalls. A Draft Sediment Risk Management Technical Memorandum has been issued that summarizes the human and ecological risks. The Army has received comments about the Draft Memorandum from the RAB and will work over the summer to address them. ♦



Pumped and treated 188 million gallons of groundwater



Buildings 2 and 45: Investigation underway

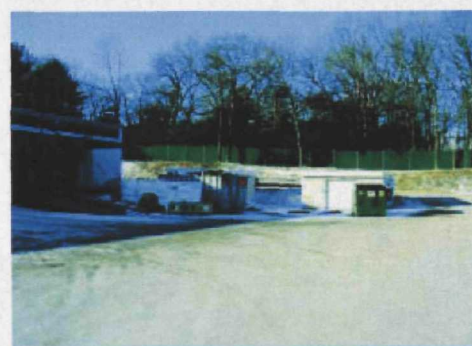


Look at What's Happening at SSC

T-25 Area: Cleanup continues



Buildings 22 and 36: Feasibility Study underway



Soil Removal Action planned for Buildings 13/14 and T62/68



Buildings 13 and 14: Investigation underway



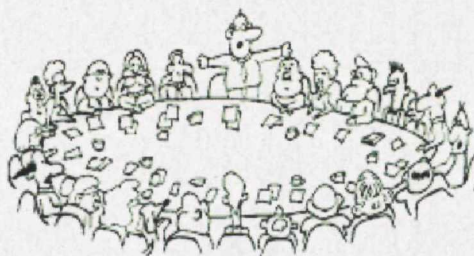
Community Involvement Makes a Difference

Join us at one of our bi-monthly **Restoration Advisory Board (RAB) Meetings** to discuss program issues.

When: First Thursday evening of the month at 7:00pm

Where: SSC Recreation Center, Kansas Street
Call (508) 233-5550 for meeting information and to confirm meeting dates.

Reports and documents related to SSC's cleanup may be reviewed by calling U.S. Army Soldier Systems Center, Environmental, Safety and Health Office at (508) 233-5550.



Agency Representatives:

- Joel McCassie, SSC Co-Chair
- Christine Williams, EPA
- Robert Campbell, MADEP
- John McHugh, SSC Restoration Officer
- James Straub, Department of Conservation and Recreation

Community Members:

- Marco Kaltofen, Community Co-Chair
- Dr. Charles Czeisler
- Anthony Doheny
- James Fitzgerald
- Sidney Gantman
- Stephen Lubic, Town of Natick Representative*
- Elizabeth McCoy, SSC Employee Member
- A. Richard Miller
- Leo Pessin
- Harlee Strauss
- Kannan Vembu, Town of Natick Representative*

* Our new members

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Please keep your questions coming!



It is our goal to keep the public informed. We appreciate and encourage your comments and suggestions.

Let us know what you think! Send in your Comment Card or contact us!



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Inside This Issue:

Neighborhood Monitoring Wells Installed	1
Hello Neighbors Friends!	1
Superfund 5-Year Review—It's Time for a Checkup at T-25 Area	2
Groundwater Cleanup Options at Buildings 22 and 36	2
Lake Sediments	3
A Quick Look at What's Happening at SSC	4
Community Involvement Makes a Difference	5
How to Contact Us	5